

Amendments to the drawings:

Attached please find three replacement sheets of drawings that include changes to FIGS. 1, 3, and 4. These replacement sheets replace the original sheets that include FIGS. 1, 3, and 4 and include the following changes that were made to correct minor errors:

In FIG. 1, two instances of the term ASIZE16 were changed to ASIZE(16), two instances of the term CIN16 were changed to CIN(16), and two instances of the term COUT15 were changed to COUT(15).

In FIG. 3, two instances of the term ASIZE16 were changed to ASIZE(16).

In FIG. 4, an instance of the term EARLYADD_COUT15 was changed to EARLYADD_COUT(15), an instance of the term EA_CSA_COUT15 was changed to EA_CSA_COUT(15), an instance of the term LA_CSA_COUT15 was changed to LA_CSA_COUT(15), an instance of the term EA_FA_COUT15 was changed to EA_FA_COUT(15), an instance of the term LA_FA_COUT15 was changed to LA_FA_COUT(15), and an instance of the term ASIZE16 was changed to ASIZE(16).

Attachments: Three replacement sheets for FIGS. 1, 3, and 4
Three annotated sheets for FIGS. 1, 3, and 4

REMARKS

The applicants have carefully considered the official action dated June 7, 2006, and the references it cites. In the official action, claims 1-5, 11-22, 26-35, and 37-39 were rejected under 35 U.S.C. § 102(b) as anticipated by Catherwood and claims 1-41 were rejected under 35 U.S.C. § 102(b) as anticipated by Blomgren.

By way of this response, the applicants have amended paragraphs 19-24 and 35-45 of the specification and FIGS. 1, 3, and 4 to correct minor typographical errors and for clarification purposes. In addition, the applicants have amended claims 1, 3, 10-12, 20, 27, 32, 33, 35-37, and 41 to clarify the scope of protection sought. No new matter has been added. Accordingly, claims 1-41 are pending in this application, of which claims 1, 11, and 27 are independent. In view of the foregoing amendments and the following remarks, the applicants respectfully traverse the rejections and respectfully submit that all pending claims are in condition for allowance. Favorable reconsideration is respectfully requested.

I. Claims 1-5

The applicants respectfully submit that independent claim 1 is allowable over the art of record. Independent claim 1 is directed to an address generator that includes, *inter alia*, an adder to add a first address component value and a second address component value to generate a first address and a control input that causes the adder to add the first component value and the second component value to generate a second address if a correction indicator indicates the first address is incorrect. As now set forth in claim 1, the first address component value used to generate the first address is the same (i.e., is equal to) the first address component value used to generate the second address, and the second address component value used to generate the first address is the same (i.e., is equal to) the second

address component value used to generate the second address. Catherwood does not teach or suggest an adder to add a first address component value and a second address component value to generate a first address and a control input that causes the adder to add the (same) first component value and the (same) second component value to generate a second address if a correction indicator indicates the first address is incorrect.

Instead, Catherwood teaches using an adder (125) to determine a sum based on a current address stored in a current address register (100) and a current offset stored in a current offset register (105). *See Catherwood*, ¶ 19. Catherwood then uses the sum to determine a wrap address and a no wrap address and selecting the wrap address or the no wrap address as a next address based on a mode bit. *See Id.*, ¶'s 28-31. Catherwood then stores the next address in the current address register (100) to overwrite the value in the current address register (100) and uses the next address in the current address register (100) to determine a subsequent address. *See Id.*, ¶ 30 and 31. Therefore, because Catherwood always overwrites the address value stored in the current address register (100) with a new, different address value, Catherwood teaches generating subsequent addresses based on different values stored in the current address register (100). In contrast, claim 1 recites an adder to add a first address component value and a second address component value to generate a first address and a control input that causes the adder to add the (same) first component value and the (same) second component value to generate a second address if a correction indicator indicates the first address is incorrect. Accordingly, Catherwood does not teach each and every element of claim 1.

Turning to the rejection of claim 1 over Blomgren, the applicants respectfully submit that Blomgren does not teach or suggest an adder to add a first address component value and

a second address component value to generate a first address and a control input that causes the adder to add the first component value and the second component value to generate a second address if a correction indicator indicates the first address is incorrect. Instead, Blomgren teaches generating a first address and adding adjustment values to the first address to generate subsequent dependent addresses (different from the first address). *See Blomgren*, col. 2, ll. 49-54; col. 4, ll. 55-62; and col. 7, ll. 5-8. Blomgren defines dependent addresses as addresses corresponding to sequentially located instructions that depend on previously generated addresses. *See Id.*, col. 7, ll. 15-18 (“A sequence of more than one PUSH or POP is precisely a sequence of dependent addresses, since the address of one PUSH depends upon the address of the previous PUSH.”).

In view of the above discussion of Blomgren, the applicants respectfully submit that the Blomgren adjustment values must differ from one another to determine sequential, dependent addresses. Therefore, Blomgren teaches generating subsequent addresses based on different values, but does not teach or suggest an adder to add a first address component value and a second address component value to generate a first address and add the (same) first component value and the (same) second component value to generate a second address as recited in claim 1. Accordingly, Blomgren does not teach each and every element of claim 1.

In view of the above discussions, neither Catherwood nor Blomgren teach or suggest each and every element recited in claim 1. Accordingly, the applicants respectfully submit that independent claim 1 and all claims dependent thereon are in condition for allowance.

II. Claims 11-22 and 26

The applicants respectfully submit that independent claim 11 is allowable over the art of record. Independent claim 11 is directed to an apparatus that includes, *inter alia*, an address generator to generate a first address from a set of address component values and a second address from the set of address component values if the first address is incorrect. Based on the antecedent language used in claim 11, the set of address component values used to generate the first address are the same (i.e., is equal to) respective ones of the set of address component values used to generate the second address.

The applicants respectfully submit that, for the reasons discussed above in connection with claim 1, neither Catherwood nor Blomgren teach or suggest an address generator to generate a first address from a set of address component values and a second address from the (same respective) set of address component values if the first address is incorrect. Therefore, neither Catherwood nor Blomgren teach or suggest each and every element recited in claim 11. Accordingly, the applicants respectfully submit that independent claim 11 and all claims dependent thereon are in condition for allowance.

III. Claims 27-35 and 37-39

The applicants respectfully submit that independent claim 27 is allowable over the art of record. Independent claim 27 is directed to a method that involves, *inter alia*, performing a first addition of a first address component value and a second address component value to generate a first address and modifying an operation in a second addition of the first address component value and the second address component value to generate a second address if the first address is incorrect. Based on the antecedent language used in claim 27, the first address component value used to generate the first address is the same (i.e., is equal to) the first

address component value used to generate the second address and the second address component value used to generate the first address is the same (i.e., is equal to) the second address component value used to generate the second address.

The applicants respectfully submit that, for the reasons discussed above in connection with claim 1, neither Catherwood nor Blomgren teach or suggest performing a first addition of a first address component value and a second address component value to generate a first address and modifying an operation in a second addition of the (same) first address component value and the (same) second address component value to generate a second address if the first address is incorrect. Therefore, neither Catherwood nor Blomgren teach or suggest each and every element recited in claim 27. Accordingly, the applicants respectfully submit that independent claim 27 and all claims dependent thereon are in condition for allowance.

In view of the foregoing, the applicants respectfully submit that this application is now in condition for allowance. If there are any remaining matters that the examiner would like to discuss, the examiner is invited to contact the undersigned representative at the telephone number set forth below.

Respectfully submitted,

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